ENVIRONMENTAL PROTECTION
LAND USE MANAGEMENT
DIVISION OF WATER SUPPLY

Safe Drinking Water Act Rules
Proposed Readoption: N.J.A.C. 7:10

Authorized by:	Mark N. Mauriello, Acting Commissioner Department of Environmental Protection
Authority:	N.J.S.A. 13:1D-1 et seq., 58:11-9.1 et seq., 58:11-23 et seq., and 58:12A-1 et seq.
Calendar reference:	See Summary below for explanation of exception to calendar requirement.
DEP Docket Number:	17-09-11/749
Proposal Number:	PRN 2009-

Submit written comments concerning this proposal by (60 days after publication) to:

Janis E. Hoagland, Esq.
Attn: DEP Docket Number: 17-09-11/749
Office of Legal Affairs
Department of Environmental Protection
401 East State Street
P.O. Box 402
Trenton, New Jersey 08625-0402

The Department of Environmental Protection (Department) requests that commenters submit comments on disk or CD as well as on paper. Submittal of a disk or CD is not a requirement. Submittals on disk or CD must not be access restricted (locked or read only) in order to facilitate use by the Department of the electronically submitted comments. The Department prefers Microsoft Word 6.0 or above. Macintosh™ formats should not be used. Each comment should be identified by the applicable N.J.A.C. citation, with the commenter's name and affiliation following the comment.

This rule proposal document can be viewed or downloaded from the Department's web page at http://www.nj.gov/dep/rules.

The agency proposal follows:

Summary

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirement pursuant to N.J.A.C. 1:30-3.3(a)5.

In accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., the Safe Drinking Water Act (SDWA) rules at N.J.A.C. 7:10, are scheduled to expire on November 4, 2009. This expiration date is extended by 180 days to May 3, 2010 pursuant to N.J.S.A. 52:14B-5.1c by the timely filing of this notice of proposal.

The SDWA rules establish the State primary and secondary drinking water regulations for public and nonpublic water systems, construction standards, fees, physical connections between an approved and an unapproved water supply, and provisions regarding civil administrative penalties and adjudicatory hearings under the New Jersey Safe Drinking Water Act, N.J.S.A. 58:12A-1 et seq. The Department has evaluated the rules and has determined that they are necessary, reasonable, and proper for the purpose for which they were originally promulgated.

The Department has been developing amendments to streamline, strengthen and clarify the SDWA rules. In December 2008, the Department convened a meeting with stakeholders to discuss various amendments under consideration. At this time, the Department has determined to propose to readopt the existing rules without change, in order to extend the expiration date for the chapter, and to propose in the near future amendments that (1) address certain process changes recommended by the Permit Efficiency Review Task Force (convened by the Commissioner of the Department in 2008 to comprehensively review the Department's permitting programs), and (2) update the penalty and enforcement provisions to conform to the amendments to the SDWA at N.J.S.A. 58:12A-10 made by P.L. 2007, c. 246, commonly referred to as the Environmental Enforcement Enhancement Act, enacted effective January 2008. The Department also anticipates proposing in 2010 additional amendments relating to permitting, the technical, managerial and financial review of public water systems, the operation and maintenance of public water systems, implementation of the requirements of the Federal Ground Water Rule (40 CFR 141.400, Subpart S), and new and revised maximum contaminant levels.

The Department notes that in March 2009 it proposed amendments to the SDWA rules to establish a maximum contaminant level (MCL) for perchlorate (see 41 NJR 1128(a)). A public hearing on that proposal was held on April 13, 2009 and the 60-day comment period closed on March 16, 2009.

Following is a summary of the rules proposed for readoption:

Subchapter 1, General Provisions, sets forth the authority for and scope and applicability of the rules, defines terms used throughout the rules, and establishes the procedures for inspections and sanitary surveys of water systems.

Subchapter 2, General Requirements, sets forth the general requirements for implementation of the safe drinking water program, including requirements for Department record keeping and plans for emergencies at public water systems. The subchapter also includes requirements that define when a demonstration of managerial and technical competence of existing water systems is needed.

Subchapter 3, Civil Administrative Penalties and Requests for Adjudicatory Hearings, governs the imposition of civil administrative penalties, the issuance of administrative orders and requests for adjudicatory hearings for violations of the SDWA and these rules.

Subchapter 4, Disinfection, establishes disinfection requirements for public community and noncommunity water systems in order to ensure that delivered water is of microbiologically safe quality. The disinfection requirements are more stringent than those required by the Federal Safe Drinking Water Act, as they require disinfection at water systems in addition to those required by the Federal SDWA.

Subchapter 5, State Primary Drinking Water Regulations, adopts and incorporates by reference the National Primary Drinking Water Regulations at 40 CFR 141 and 142, including MCLs for various contaminants, as New Jersey's Primary Drinking Water Regulations and establishes discretionary changes to the Federal rules. These discretionary changes include more stringent MCLs for certain contaminants as well as MCLs for some contaminants that are not regulated under the Federal rules. All public water systems are subject to all MCLs and action levels pursuant to N.J.A.C. 7:10-5. The subchapter contains requirements for the analysis of drinking water for contaminants, including specifications for the submittal of analytical data to the Department. In addition, the subchapter includes the requirements for public notification required for a public water system that violates the SDWA rules, recordkeeping and remediation requirements when there is a violation of a promulgated MCL.

Subchapter 6 is currently reserved.

Subchapter 7, State Secondary Drinking Water Regulations, establishes the upper limit or optimum range for those drinking water contaminants that may adversely affect the taste, odor, or appearance of the water which are classified as secondary drinking water regulations. These requirements are more stringent than those contained in the Federal rules and require routine monitoring at various frequencies depending on the contaminant and the type of water system. The subchapter also establishes public notification requirements for exceedances of the standards.

Subchapter 8, Drinking Water Additives, establishes standards for the use or occurrence of direct and indirect additives in public water systems in order to protect against the adverse health effects of such additives.

Subchapter 9, Surface Water Treatment Requirements, establishes the minimum treatment requirements for public water systems that use surface water, and establishes discretionary changes to the Federal rules at 40 CFR 141, Subpart H - Filtration and Disinfection. The subchapter contains requirements for evaluating and monitoring ground water sources that are under the direct influence of surface water. The subchapter also establishes the reporting requirements for surface water treatment plants and additional treatment and monitoring requirements applicable to surface water filtration plants.

Subchapter 10, Physical Connections and Cross-connection Control by Containment, establishes the permit, design, and testing requirements for physical connections between public community water systems and facilities that have sources of water that may be contaminated or of questionable or unknown quality. The subchapter sets forth provisions for the installation of physical connections and outlines the process for submission of new and renewal physical connection permit applications, as well as requirements for modifying or terminating a physical connection permit. The subchapter also specifies inspection and testing requirements for physical connections, and requirements for any person, organization or corporation seeking to be approved by the Department to certify individuals as certified testers of backflow prevention devices.

Subchapter 11, Standards for the Construction of Public Community Water Systems, establishes the permit requirements and standards for the design and construction of new or modified public community water systems, with either groundwater or surface water sources. The subchapter also establishes the permit requirements and standards for the construction of distribution systems, including master permits and water main extension permits. The subchapter includes specific requirements for chemical handling and chemical feed systems used for the treatment of drinking water; requirements related to the pretreatment of water, filtration and other miscellaneous treatment processes; and specific requirements for the disinfection of public community water system water supplies.

Subchapter 12, Standards for the Construction of Public Noncommunity Water Systems and Nonpublic Water Systems, establishes requirements for the certification and standards for the construction of new, altered, or replacement nonpublic water systems and public noncommunity water systems. These include specification of permitted deviations from construction standards, specifications on the sources of water that may be used for a drinking water source, requirements for frost protection for a water system, physical connections, priming systems and minimum disinfection requirements. In addition, the subchapter includes specifications for the minimum distance that a public noncommunity or nonpublic water system is to be located away from sources of contamination including sanitary sewers, septic systems, fuel storage tanks and other structures.

Subchapter 13, Standards for Technical, Managerial, and Financial Capacity for Public Community and Noncommunity Water Systems, establishes minimum technical, managerial and

financial capacity requirements for new public community and nontransient noncommunity water systems.

Subchapter 14 is currently reserved.

Subchapter 15, Fees, establishes fees for the safe drinking water program based on the estimated costs of conducting, monitoring, administering, and enforcing the program.

Social Impact

The Department anticipates that the rules proposed for readoption will continue to have a positive social impact through protecting public health by ensuring the quality of drinking water delivered to consumers. The SDWA rules provide the regulatory framework necessary to assure the availability of high quality potable water. The Legislature declared this essential to safeguard the health and welfare of the citizens and visitors of the State of New Jersey. The rules directly affect owners and operators of any water system and all persons served by public water systems and nonpublic water systems. The rules set drinking water standards, monitoring requirements, remediation requirements, permitting procedures and provide design standards for water systems. The readoption of the rules will help ensure the provision of safe drinking water to consumers and maintain New Jersey's primary enforcement responsibility under the Federal Act.

Economic Impact

Ongoing operation of a water system requires the expenditure of funds necessary to comply with the SDWA rules. The expenses incurred as a result of the SDWA rules are testing expenses, which every water system must incur in order to routinely test the quality of the drinking water; compliance expenses incurred by those water systems whose water quality or facilities are in need of improvement in order to meet the standards; and water tax, permit and operational fee expenses to support the administration of the safe drinking water program. The degree of economic impact to water systems and the public is highly dependent on the size of the water system, the number of users, the quality and source of the water used to produce potable water and the actions necessary to attain compliance with the SDWA rules. Exceedance of the MCLs or standards requires a water system to take action to monitor and/or conduct remediation activities to meet those standards. Additionally, maintenance of water system infrastructure such as the repair and replacement of transmission pipes and storage equipment can also affect costs to systems.

In the case of public community water systems that directly charge for water services, these costs are ultimately passed on to households through water service rate increases. However, the costs incurred by public water systems and nonpublic water systems to comply with the SDWA rules must be balanced against the State's paramount policy to protect the purity of drinking water and public health. Additionally, the Federal government has programs that

support the construction and maintenance of drinking water systems and thus subsidize the costs for public water systems to attain compliance with the rules or maintain infrastructure. The Drinking Water State Revolving Loan Fund (DWSRF), created by the 1996 amendments to the Federal SDWA provides Federal grants from USEPA to the states. The states, in turn, provide loans to drinking water systems, which can be used to repair and replace supply, transmission and distribution systems, storage and treatment equipment, and other projects required to protect public health and to ensure compliance with the SDWA. The availability of this funding can help lessen the economic impacts to consumers.

The total economic impact of the safe drinking water program on consumers is minimal, considering the total cost of providing water. In New Jersey, consumers generally pay much less for drinking water than for most other utilities and services, such as cable television, telephone service, and electricity. Tap water costs tend to be lower when supplied by large water systems, and higher when supplied by small systems. Treatment accounts for about 15 percent of the cost of delivered water. The rest is attributable to equipment (such as the treatment plants and distribution systems), and labor for operation and maintenance of the system. Nationally, on average, consumers use over 100 gallons of water per day for everything from drinking and bathing to watering gardens. The residential rates and average water bill analysis for metered service in New Jersey, which is under the jurisdiction of the Board of Public Utilities (BPU), indicates that the average cost of water in the State is $4.07 per 1000 gallons as of April 2009.

The rules proposed for readoption will also continue to have a positive economic impact on laboratories certified by the State of New Jersey, because the testing required by the SDWA rules generates revenue for these laboratories. Additionally, the rules will have a positive economic impact on operators licensed pursuant to N.J.A.C. 7:10A, as the expertise of these operators will be sought by water systems to ensure compliance with the SDWA rules.

Environmental Impact

The Department anticipates a positive impact on the environment as a result of the rules proposed for readoption. These rules provide the Department with the authority to ensure the provision and maintenance of high quality potable water necessary to safeguard the health and welfare of the citizens of the State. The rules indirectly contribute to the protection of potable water resources in the State, as the requirements to monitor and treat water for potable use create an incentive to protect the integrity and purity of the resources from which the water is drawn.

Federal Standards Analysis

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. require State agencies which adopt, readopt or amend State regulations that exceed any Federal standards or requirements to include in the rulemaking document a Federal Standards Analysis.

The Federal Safe Drinking Water Act (Federal SDWA) was enacted in 1974 (P.L. 93-523) and amended in 1986 and 1996. Regulations for 23 drinking water contaminants were promulgated, at 40 CFR 141, by the USEPA in 1975. The Federal SDWA regulations were amended in the late 1980s and 1990s such that there are now more than 90 regulated microbiological, chemical and radiological parameters.

In response to the passage of the Federal SDWA, the State SDWA was passed in 1977 and the SDWA rules promulgated in 1979. The Department adopts and incorporates by reference all National Primary Drinking Water Regulations, 40 CFR 141, as amended and supplemented including all siting requirements, filtration and disinfection requirements, maximum contaminant levels (MCLs), monitoring and analytical requirements, reporting requirements, public notification requirements, and record-keeping requirements as the New Jersey primary drinking water regulations, applicable to all public water systems. Therefore, the Department's drinking water program is based on the Federal standards.

However, because there were no Federal standards for hazardous chemicals in drinking water in the early 1980s and a large number of Superfund sites were identified in the State and the prevalence of ground water contamination was increasing, the State Legislature amended the State SDWA in 1983, and directed the establishment of MCLs for a selected list of volatile organic contaminants (VOCs) and synthetic organic contaminants (SOCs). The level of protection established under the statute for carcinogens, is a goal of a risk of no more than one in one million over a lifetime of exposure, and for noncarcinogens, a goal of no adverse physiological effects over a lifetime of exposure. To date, the Department has promulgated MCLs for 14 contaminants that are more stringent than the Federal standards and has promulgated MCLs for five contaminants for which there is no Federal MCL. As noted previously, the Department's proposal to establish a State MCL for perchlorate is pending.

The State standard setting process is very similar to the Federal standard setting process but there are some differences. The State SDWA describes three factors in developing MCLs within the statutory framework: health effects; technological ability to measure the contaminant level; and ability of existing treatment technologies to meet the MCL; for noncarcinogenic chemicals, a cost factor is also considered as part of the standard development process. The Federal standard setting process considers health effects; technological ability to measure the contaminant level; and ability of existing treatment technologies to meet the MCL and an additional economic factor. The Federal Act defines an MCL goal of "zero" for carcinogens. Differences in the application of the analytical technology factor, the treatment technology factor, and the economic factor used by the USEPA have resulted in the establishment of Federal MCLs for carcinogens that differ from those established by the Department using the State SDWA process. Consequently, there are contaminants regulated under the State Act that have more stringent MCLs than those promulgated by the USEPA. The VOCs and SOCs with more stringent MCLs are benzene, carbon tetrachloride, chlordane, 1,2-dichloroethane, 1,2-dichloroethylene, methylene chloride, monochlorobenzene, tetrachloroethylene, 1,2,4-

trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichlorethylene and xylenes. The VOCs that have State MCLs but no Federal MCL are meta-dichlorobenzene, 1,1-dichloroethane, methyl tertiary butyl ether, naphthalene, 1,1,2,2-tetrachloroethane. The only inorganic contaminant with an MCL more stringent than the Federal MCL is arsenic.

As one of the most heavily populated states in the nation and one where manufacturing and refining industries were significant employers until recent decades, New Jersey has already identified a number of contaminated water supplies. By 2003, 54 community water systems, nearly 9 percent of the more than 600 community water systems in the State, had organic removal systems in place to remove or reduce the levels of regulated volatile or synthetic organic chemicals from the water supply. In many cases, non-regulated organic chemicals were found in the source waters in addition to the regulated organic chemicals that required treatment. These non-regulated contaminants of concern were removed by the processes installed as best available treatment for the regulated organic contaminants. Of the community water systems and nontransient noncommunity water systems that monitored for VOCs in 2008, 11 MCL violations were identified at four systems. Excluding nitrate, for which the State MCL is the same as the Federal MCL, in 2008 there were 78 MCL violations at 20 systems for inorganic chemicals, all involving arsenic, which is the MCL most recently promulgated by the Department. Therefore, for most existing MCLs, including those for which the State MCL is more stringent than the Federal MCL, compliance has already been achieved and therefore the only cost associated with these MCLs is the cost of maintaining existing treatment, which is comparatively low.

In addition, the State SDWA rules contain disinfection requirements and monitoring requirements for some parameters that are more stringent than those required by the Federal rules. Specifically, the Federal rules do not expressly require disinfection by public community water systems using only groundwater as a source. The State SDWA rules require all public community water systems using only groundwater as a source to disinfect, with the exception of those that serve 100 or fewer dwellings or properties. However, those serving 100 or fewer dwellings or properties must increase the number of microbiological samples collected, which is also more stringent than the Federal rules. Additionally, the SDWA rules contain microbiological monitoring requirements more stringent than those contained in the Federal rules since the microbiological sampling frequency cannot be reduced to less than one sample per month for a public water system serving 25 to 1000 persons, as is permitted under the Federal rules. The SDWA rules also include more stringent requirements for some secondary contaminants, those that affect the taste and odor of the drinking water or affect the aesthetics of the drinking water. Specifically, the Federal rules at 40 CFR 143.4 only recommend monitoring of secondary contaminants. The State SDWA rules require the monitoring of secondary contaminants.

The Department's experience since the inception of the State drinking water program has been that the public wants its drinking water treated so that the lowest possible levels of contaminants remain in the water, regardless of the applicable MCLs. Therefore, more stringent

State MCLs have not resulted in expenditures by the water suppliers that were not also supported by the communities where the drinking water contamination was found. The additional disinfection and monitoring requirements for secondary contaminants are intended to further safeguard the health and welfare of the public. The costs to the water systems to meet these additional requirements is minimal in relation to the costs they incur in treating water to meet the requirements for the primary contaminants. The State's policy of setting standards designed to protect public health is also supported by the water suppliers, which generally strive to provide the best quality of water possible to customers.

Last, the USEPA does not regulate the issuance of physical connection or water system permits, and the enforcement of the National Primary Drinking Water Regulations is delegated to the State. Therefore, no Federal Standards Analysis is required for these provisions.

Jobs Impact

Readoption of these rules will enable New Jersey to receive Federal grant money to implement and enforce the rules. The SDW program in the Department is fully developed and has been in operation for decades. Not readopting these rules would likely eliminate jobs in the Department and in the drinking water industry because the State would lose primacy for the safe drinking water program. Since the regulated community has been required to comply with the existing SDWA rules for decades, the readoption of the rules without change is not anticipated to have any impact on employment.

Agricultural Industry Impact

The rules proposed for readoption are not expected to have any impact on the agricultural industry. The water quality of agricultural wells (typically used for irrigation) is not subject to the SDWA rules. In general, public water systems are not used as a water source for agricultural purposes, although there are public transient noncommunity water systems in New Jersey that serve migrant farm camps. To the extent that a farm may use water from a public water system, the farm will incur any system costs that may be passed on to the consumer for monitoring and treatment of contaminants. However, most water systems that serve migrant farm workers are classified as nonpublic water systems and are therefore are not subject to the public water system monitoring requirements. Transient noncommunity and nonpublic water systems that serve migrant farm camps are required to be constructed according to the requirements for the construction of noncommunity and nonpublic water systems at N.J.A.C. 7:10-12. If farm camps were classified as public nontransient noncommunity water systems, the systems would incur costs associated with monitoring and if necessary, treatment as discussed above in the Economic Impact. The Department is not aware of any public nontransient noncommunity water systems that are part of the agricultural industry in New Jersey.

Regulatory Flexibility Statement

Approximately 800 of the public community and public nontransient noncommunity and approximately 2,000 public transient noncommunity water systems in the State are considered small businesses, as defined under the Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq. The small businesses affected by the rules proposed for readoption are typically small water companies, mobile home parks or homeowners associations. The Board of Public Utilities controls the water rates charged by small water companies, and allows the companies to recover the costs associated with complying with Department requirements through their rates. Mobile home parks that operate public water systems usually cannot recover the costs of complying with Department requirements as easily because they are paid by customers who rent their property, and the mobile home parks may be prohibited from recovering costs under local rental ordinances. In these instances, costs for complying with Department requirements might be recovered through amendment of local rental ordinances or the prices for other products and services provided by these water systems.

Water systems may have to employ outside services to perform required water sample tests, required reporting and recordkeeping and, if facility improvements are needed to meet the SDWA standards, professionals such as engineers and construction contractors would likely be needed. The costs of any of these services would vary significantly based upon the type and extent of services required. Smaller systems must provide safe drinking water to the citizens and visitors to the State; therefore, they must meet the same basic water quality and testing standards as large water systems. Neither Federal nor State law allows for lesser standards to be applied to water systems that are small businesses. In light of this and of the importance of ensuring an adequate supply of safe drinking water generally, it is not feasible for the Department to regulate large and small businesses differently under the rules. However, the SDWA rules overall are designed to minimize impacts on small water systems through lower fees, reduced design criteria, reduced testing frequency requirements and lower penalties.

The rules proposed for readoption are not expected to have any impact on small laboratory businesses certified by the State of New Jersey under N.J.A.C. 7:18, as the cost of testing can be passed on to those requesting the laboratory services.

Smart Growth Impact

Executive Order No. 4 (2002) requires State agencies that adopt, amend or repeal any rule to describe the impact of the proposed rule on the achievement of smart growth and implementation of the New Jersey State Development and Redevelopment Plan (State Plan). The Department has evaluated this rulemaking to determine the nature and extent of the rules' impact on smart growth and implementation of the State Plan.

The purpose of the New Jersey SDWA rules is to ensure that the drinking water available to consumers meets the drinking water standards and that the quantity and delivery pressure of potable water is sufficient for the safety and protection of public health. The State does not anticipate that the readoption of the rules will affect the State land use and development policies in a way that would either encourage or discourage any development or redevelopment contrary to the guiding principles of the State Plan. As a result, the Department does not expect the readoption of the rules to have an impact on the State's achievement of smart growth or implementation of the State Plan.

Housing Affordability Impact

Pursuant to N.J.S.A. 52:14B-4(a), the Department has evaluated the rules proposed for readoption to determine their impact, if any, on the affordability of housing. The Department has determined that the rules will have an insignificant impact. Though costs for potable water treatment plant operations and monitoring are passed on to residential customers, the costs for water are very low compared to the overall costs of housing. Therefore, there is an extreme unlikelihood that the rules will evoke a change in the average costs associated with housing.

Smart Growth Development Impact

Pursuant to N.J.S.A. 52:14B-4(a), the Department has evaluated the rules proposed for readoption to determine the impact, if any, on smart growth development. The Department has determined that the rules will have an insignificant impact. Though costs for potable water treatment plant operations and monitoring are passed on to residential customers, the costs for water are very low compared to the overall costs of housing. Therefore, there is an extreme unlikelihood that the rules will evoke a change in housing production in Planning Areas 1 or 2, or within designated centers under the State Development and Redevelopment Plan.

Full text of the rules proposed for readoption may be found in the New Jersey Administrative Code at N.J.A.C 7:10.